



#### Get results with smart routing

- Reduce planning time
- Save fuel and running costs
- Balance runs
- Maximise fleet utilisation
- Measure and manage costs
- Offer more competitive pricing
- Improve driver performance
- Reduce carbon footprint
- Reduce risk and improve safety

# SMART ROUTING SOLUTIONS

Sophisticated route planning and optimisation solutions that solve complex routing problems, reduce planning time, [maximise fleet utilisation](#)<sup>x</sup> and deliver outstanding business results.

## SMART ROUTING

### Overview

Whether managing emergency response, a fleet, sales team, making deliveries or picking up waste material, figuring out the most efficient way to deploy your resources is not always easy.

Factors like resource availability, vehicle capacity, driving conditions and time constraints can make planning logistics or transport networks difficult and very time consuming. It can take weeks or months to plan a network manually. With Critchlow's smart route planning and optimisation tools, this task can be reduced to days or even hours.

**“Clients have reduced their fuel costs by more than 25%.”**

Critchlow is New Zealand's leading provider of location intelligence solutions. Over the last 20 years we have been helping decision makers make better operational and strategic decisions by leveraging spatial information. Using best

of breed mapping and routing software and our definitive road network data for New Zealand, we can deliver solutions that help maximise productivity, efficiency and customer service.

### Experience Delivers Results

Critchlow has worked with organisations in New Zealand and Australia to deliver solutions that have achieved outstanding business results. In some cases, our clients have reduced fuel costs by more than 25 percent by implementing Critchlow solutions.

### Route Planning and Optimising Routes

There are two key areas where Critchlow can help:

**Route Planning** – what jobs should be allocated to which drivers or runs, and

**Route Optimisation** – what is the shortest or fastest way to deliver or complete jobs within a run (scheduling).

Just knowing the fastest or shortest way to get from A to B alone is not enough. Every situation is different and Critchlow will work with you to understand your specific



**CRITCHLOW**

<sup>x</sup> Everything that happens, happens somewhere. The value is knowing where.



**Solutions and services:**

- Route audits
- Route management solutions
- Routing web services
- Systems integration
- Accurate road navigation data



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**Route Optimisation Trial Results**

Run	Before		After					
	Distance (km)	Time (min)	Distance (km)	Saving (km)	%	Time (min)	Saving (min)	%
1*	172.49	192.85	89.69	85.80	49	113.90	78.95	41
2	124.90	142.48	108.28	16.62	13	120.45	22.03	15
3	66.99	118.99	57.36	9.63	14	95.11	23.88	20
<b>Total</b>	364.38	454.32	255.33	109.65		329.46	124.86	
<b>Average</b>	121.46	151.44	85.11	37.35	25	109.82	41.62	27

\* Illustrated below

**Before**



**After**



business requirements. Our solutions are smart enough to take into account:

- Vehicle capacity
- Site open/close times
- Time windows
- Completion time/duration limits
- Traffic conditions
- Speed limits
- Available resources
- Multiple depots
- Dynamic planning or scheduling to manage fluctuating demand
- Integration with vehicle tracking

**Solutions and Services**

**Consultancy Services and Route Audits**

Our experienced team of consultants will work with you and help identify opportunities to improve your logistics. Before any investment in a solution we can answer questions like – How much air are we carrying? How many more pickups/deliveries can each driver do per week? How much can mileage, and fleet running costs, be reduced?

By analysing existing data, these factors can be qualified to prove the business case before you invest.

Depending on the nature of your business and the problem, some route planning solutions can be provided on an outsourced or project-by-project basis.

**Route Management Solutions**

Whether it's a planning or scheduling problem, we have the tools to suit.

**Routing Web Services**

Critchlow can now offer a routing web service capable of optimising schedules, providing turn by turn directions.

Algorithms and functionality to allow for time constraints are also available. This option offers a cost effective solution for dynamic routing.

**Systems Integration**

Whether integrating with large ERP, CRM systems or GPS vehicle tracking systems, our team has the skills and experience to get you up and running. Our systems are built on best of breed technology, are very open, and support most operating systems and web protocols.

**Accurate Road Navigation Data**

Critchlow's mapping and road network data is recognised as the most accurate and comprehensive currently available. We hold a wide range of attributes on New Zealand roads from speed limits to height and weight restrictions. Many large organisations, both public and private, rely on Critchlow data to manage their assets, logistics and even the road network itself.